1. A guidewire for inserting into body passageways during medical procedures comprising:

a length of titanium molybdenum alloy wire.

2. A guidewire for inserting into body passageways during medical procedures as in claim 1 wherein,

the length of titanium molybdenum alloy wire has a proximal end and a distal end, the distal end being of a smaller diameter and therefore softer than the proximal end.

3. A guidewire for inserting into body passageways during medical procedures as in claim 2 having,

a gradient of softness between the distal end and the proximal end with the distal end being softer.

4. A guidewire for inserting into body passageways during medical procedures as in claim 2 having,

a taper of the diameter between the distal end and the proximal end with the distal end being smaller.

5. A guidewire for inserting into body passageways during medical procedures as in claim 2 having,

a distal end having a coil wrapped around, with the coil touching the distal end such that the coil provides springiness at the distal tip and touches the distal tip to prevent kinking of the coil.

6. A guidewire for inserting into body passageways during medical procedures as in claim 2 having,

a distal tip on the end of the distal end to prevent the distal end from penetrating tissue in the wall of a passageway.

7. A guidewire for inserting into body passageways during medical procedures as in claim 2 wherein the titanium molybdenum alloy wire comprises approximately 78% titanium 11.5% molybdenum 6% zinc and 4.5% tin by weight.

8. A guidewire for inserting into body passageways during medical procedures as in claim 2 wherein the titanium molybdenum alloy wire comprises approximately between about 75 % and about 83 %titanium, between about 8 % and about 14 %molybdenum between about 4 % and about 8 % zinc and between about 2 % and about 6 % tin by weight.

9. A guidewire for inserting into body passageways during medical procedures comprising:

obtaining a titanium molybdenum alloy wire,

grinding the distal end to make a smaller diameter,

attaching a coil to the distal end

attaching a distal tip to the distal end.

10. A guidewire for inserting into body passageways during medical procedures as in claim 9 with the further step of,

tapering the distal end to provide a gradient of softness.

11. A guidewire for inserting into body passageways during medical procedures as in claim 9 with the further step of,

heat treating the distal end to provide a gradient of softness.

add all